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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,092	03/04/2004	Toni Paila	60091.00300	4087
32294	7590	07/21/2011	EXAMINER	
Squire, Sanders & Dempsey (US) LLP 8000 TOWERS CRESCENT DRIVE 14TH FLOOR VIENNA, VA 22182-6212				CEHIC, KENAN
ART UNIT		PAPER NUMBER		
2473				
			NOTIFICATION DATE	DELIVERY MODE
			07/21/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Response to Arguments

1. Applicant's arguments filed 06/29/2011 have been fully considered but they are not persuasive.

For claims 1 and similarly 13 and 16, the applicant argues that both Thompson and Korus disclose a reverse- path transmission to end devices on pages 5 and 6 of the Remarks. The claims do **not require** that no reverse path can exist between the end devices and upstream devices. The claim clearly states "wherein

the multicast connection from a multicast controller to a recipient is unidirectional; ". The language clearly indicates that only the multicast connection from the controller to the recipient is unidirectional; there **is no requirement that there can not be any reverse path transmissions.** As can be seen in the above rejection, Ginzborg teaches that a multicast connection is to be considered unidirectional; that is when multicast traffic (i.e. multicast connection) is sent only in the direction of the recipient. It is the examiner stance that the amended limitations do not require that no traffic from the recipient is to be sent (i.e. there is only unidirectional communication). Therefore, the fact that recipients of multicasts in figures 10a-d send messages upstream towards nodes that are multicasting does not exclude the use of the reference. It is believed that Ginzborg's teachings show that a multicast connection is to be considered unidirectional. Further, the fact that Korus has teachings of reverse path communication does not teach away / exclude the references because of the

above reasoning (i.e. multicast traffic (connection) is considered unidirectional). The applicant does not address these arguments nor Ginzberg's disclosure in regards to the teaching that a multicast is unidirectional, that was previously presented to the applicant in the Final office action mailed 01/05/2011.

Further on page 5, of the Remarks the applicant argues that "Thus, Thompson clearly lacks a multicast tree reserved for control messages. Specifically, Thompson fails to teach or suggest, at least." The office action cites that the multicast group of figure 10a is considered as the second multicast group / tree, and that figure 10c is the first multicast group / tree. In fig 10a, 2 and section 0099 ("multicasts this join instruction to group"), it is believed that Thompson discloses a multicast tree (second multicast tree) that is used for transmission of a join command. It is clear that we have a multicast tree in figure 10 a (section 0099, step 2) which is used to transmit join command(s) to recipients, there it is clear that we have a control multicast tree which is used to transmit join commands which corresponds to the limitation of the second multicast tree of the claims.

Further on page 7, the applicant argues that source CS.1 uses the multicast tree in figure 10a to transmit data, therefore Thompson does not disclose a "tree reserved for control messages." It is pointed out the applicant that the claim does not recite the features of "reserving a tree for control messages." The claims merely recite a first multicast tree for multicasting data to recipients and second tree for control messages to multicast controllers. Therefore, the **claims do not require that the second multicast tree is "reserved" or only used for control**

/ **join messages** as the applicant implies. As explained previously the multicast tree in figure 10 a is used for the join command (i.e. corresponding to second multicast tree in the claims), while the multicast tree in Figure 10 C is a multicast for transmitting data to the recipients (i.e. corresponding to first multicast tree in the claims). Clearly as seen in figures 10a and 10c and explained in section 0099, these multicast trees are different. In Figure 10a, CS.1 multicast the join command, while in figure 10C, the broadcast center (B.C.) multicast the query messages (i.e. corresponding to data in the claims). Therefore, the is clear that we have two different multicast trees, one used for multicasting the join command, and one for data (a multicast tree that was joined).

Further, on page 7 of the Remarks, the applicant argues that "In the claims of the present application, the tree reserved for control messages ends at the multicast controllers, not at the receivers receiving the actual multicast data packets". It is pointed to the applicant that the claim does not require that "the tree reserved for control messages ends at the multicast controllers"; the claim merely states that "generating at least one second multicast tree for control messages in an internet protocol network from a network multicast controller **to at least one multicast controller**". The language clearly does not require that the multicast "ends" at the multicast controller as the applicant argues. Further the claim states "multicast tree....to at least one multicast controller," therefore the tree goes only **to at least** a multicast controller and the claim language indicates that there can be further recipients further down the tree. The language in the claims **does not**

present a requirement that the multicast tree must end and the multicast controller. If the applicant wishes that the second tree ends at the multicast controller, such limitations must be expressly stated in the claims.

For claim 12, the applicant argues that Dean is not prior art since Dean claims priority to the filling date of the Provisional Application 60/289,023. The filling date of Provisional Application 60/289,023 is May 4, 2001 therefore qualifying Dean as prior art. The examiner has examined Provisional Application 60/289,023 and it is believed the disclosure provides support for the Dean reference. The examiner is not allowed to provide copies of Provisional Applications, however the Applicant can request copies of Provisional Applications for a fee from the USPTO.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KENAN CEHIC whose telephone number is (571)270-3120. The examiner can normally be reached on Monday through Friday 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KWANG BIN YAO can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kenan Cehic/
Examiner, Art Unit 2473